FY 1999 Technology Deployment in Environmental Management

Engineering Tomorrow's Solutions Today

Site Technology Coordination Group / Technology Deployment Center
U.S. Department of Energy, Idaho Operations Office

Segmented Gate System

Problem: *A cost effective technique to separate bulk Cs-137 contaminated soil from clean soil at the INEEL is desirable.*

Baseline Technology: *Excavation of potentially clean soils with contaminated soils involving transportation and disposal of significant volumes of uncontaminated soils would be necessary, thereby raising cleanup times and costs.*

Innovative Technology: *Thermo Nutech's Segmented Gate System (SGS) characterizes and mechanically separates radioactively-contaminated soils from clean soils using detectors on a conveyor belt system.*

Comparison: *The 90% volume reduction needed in order for the SGS to be cost competitive with direct haul to a repository was not realized.*

Benefits: *At the INEEL's Auxiliary Reactor Area (ARA), the SGS provided no direct benefit. Cs-137 concentrations were too high, the particles were too similar in size and the required cleanup limit was too low for the proper separation to occur.*

TMS#: 2158

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